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Impact of Rural Household Savings on Entrepreneurship Development: A Moderating Effect of Financial Literacy in Kebbi State, Nigeria

Utiya Bello
Department of Economicss
Sokoto State University, Sokoto, Nigeria

Abdulaziz Shehu
Abdullahi Shehu
Department of Economics
Federal University Birnin Kebbi, Kebbi State, Nigeria

Corresponding Author: shehu.abdullahi@fubk.edu.ng

Abstract

This study examines the moderating effect of financial literacy on the relationship between rural household savings and entrepreneurship development in Kebbi State, Nigeria. Employing mixed-method approach grounded in positivist philosophy, data were collected via structured questionnaire from 300 purposively sampled rural households in Kebbi state. The survey measured key constructs, including rural household savings, financial literacy and entrepreneurship development, using validated Likert-scale items, with reliability and validity tests confirming the robustness of the measurement model. Data analysis involved descriptive statistics and Partial Least Squares Structural Equation Modelling (PLS-SEM). Findings indicated that both household savings and financial literacy positively influence entrepreneurship development, with financial literacy significantly moderating this relationship. Higher financial literacy appears to reduce reliance on savings alone, suggesting rural households diversify resources or adopt better financial management strategies. The study concludes that enhancing financial literacy significantly strengthens the positive impact of rural household savings on entrepreneurship development, thereby accenting the importance of targeted financial education and tailored financial support in fostering sustainable rural entrepreneurship. The study recommends promoting financial literacy campaigns, encouraging community-based savings practices and developing accessible financial services to foster sustainable entrepreneurship and economic resilience in rural Kebbi state. The findings contribute to understanding how financial education amplifies the positive effects of savings on rural enterprise growth, emphasizing the need for integrated financial empowerment strategies tailored to rural contexts.

Keywords: Household savings, Financial Literacy, Entrepreneurship Development, PLS-SEM

Introduction

Entrepreneurship is widely recognized as a vital driver of economic growth, employment generation and poverty reduction, particularly in developing countries like Nigeria (Akinwale & Adeniyi, 2018). Household savings serve as a crucial resource for entrepreneurship activities, providing the necessary capital for starting and expanding businesses in Nigeria (Olowolaju & Akinwale, 2019). However, the extent to which household savings influence entrepreneurship development varies across regions, influenced by socio-economic, cultural, and financial factors. Kebbi State, located in the northwest geopolitical zone of Nigeria, is predominantly agrarian, with a largely rural population engaged in farming, pastoralism and small-scale trading (NBS, 2022). Despite the rich natural resources and entrepreneurship spirit among its inhabitants, Kebbi state faces significant challenges in translating savings into sustainable entrepreneurship ventures. Previous studies in Nigeria have established positive relationship between household savings and entrepreneurship activities (Ogunleye & Agboola, 2017; Eze *et al.,* 2019).

However, these studies often overlook the role of financial literacy as a vital moderating factor that influences the effective utilization of savings for entrepreneurship growth (Lusardi & Mitchell, 2014). From theoretical perspective, the Resource-Based View Theory (RBV) suggests that household savings constitute critical resource that can be harnessed for competitive advantage in entrepreneurship (Barney, 1991). Meanwhile, the Financial Literacy Theory (FLT) posits that individuals equipped with adequate financial knowledge are better positioned to make informed financial decisions, including saving and investing for entrepreneurship purposes (Huston, 2010). These theories imply that financial literacy could enhance the positive effect of savings on entrepreneurship development by improving financial planning, risk management and investment decisions. However, in Kebbi State the practical application of these theories encounters unique realities. Many households have limited access to financial education, inadequate banking infrastructure and cultural attitudes that influence savings behaviours (CBN, 2020). Despite the availability of microfinance institutions and government programs aimed at promoting financial inclusion, the uptake remains low and the impact on entrepreneurship is insignificant (Kebbi State Ministry of Commerce and Industry, 2021). This gap between theoretical expectations and ground realities underlines the need for empirical investigation.

Statement of the Research problem

While existing studies acknowledged the importance of household savings and financial literacy in fostering entrepreneurship, there is a paucity of region-specific research in Kebbi State that examines the moderating effect of financial literacy in the savings-entrepreneurship nexus. Most studies are either national in scope or focus on urban centres, neglecting rural contexts where most of the population resides in Kebbi state (Adebisi & Olowolaju, 2020). Moreover, there is limited empirical evidence on how financial literacy moderate the effective transformation of rural household savings into entrepreneurship ventures. This study, therefore, is timely and necessary to fill these gaps by providing context-specific insights into how rural household savings and financial literacy interact to promote the development of entrepreneurship in Kebbi State. These dynamics can inform policy interventions aimed at increasing financial literacy, promoting savings culture and fostering sustainable entrepreneurship in rural Nigeria.

The principal purposes of the study were first, to examine whether rural household saving predicts entrepreneurship development. Secondly, to examined whether financial literacy can predict entrepreneurship development and, lastly, tested the moderating role of financial literacy in the relationship between rural household saving and entrepreneurship development. This study

suggests the following hypotheses:

H_1: Rural household saving has not positively impacts on entrepreneurship development.

H_2: Financial literacy doesn't have positive impact on entrepreneurship development.

H_3: There is no significant moderating effect of financial literacy on the relationship between household saving and entrepreneurship development.

Theoretical Framework and Empirical Literature

The study adopts an integrated theoretical framework comprising the Theory of Planned Behaviour (TPB) and Financial Literacy Theory to explain household savings and entrepreneurship development.

Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (Ajzen, 1991) is widely utilized to predict individual actions, including financial decision-making and entrepreneurial pursuits. It posits that behaviour is driven by behavioural intentions, which are shaped by three core components: attitudes towards the behaviour, subjective norms and perceived behavioural control. In the context of household savings and entrepreneurship, this theory suggests that positive attitudes towards saving, along with strong sense of control over financial resources, substantially influence households' saving behaviours and their engagement in entrepreneurial activities. Empirical research supports this, demonstrating that favourable attitudes and higher perceived behavioural control significantly enhance entrepreneurial intentions and actions (Kautish *et al.*, 2020; Liñán & Chen, 2009).

Financial Literacy Theory

Complementing the TPB is the Financial Literacy Theory, which emphasizes that individuals' knowledge, skills and confidence in managing financial resources directly influence their financial behaviours, such as saving, investing and managing debt (Lusardi & Mitchell, 2014). Higher levels of financial literacy enable households to make better-informed financial decisions, leading to improved saving habits and more effective management of entrepreneurial ventures (Huston, 2010; Lusardi & Tufano, 2015). Evidence consistently demonstrates a positive correlation between financial literacy and household savings, as well as entrepreneurial success, underscoring the importance of financial literacy in shaping responsible financial behaviour (Atkinson & Messy, 2012).

Integrating these theoretical perspectives, the framework posits that financial literacy influences attitudes and perceived behavioural control (key components of the TPB) that in turn affect saving behaviours and entrepreneurial engagement. Households with higher financial literacy tend to develop more positive attitudes toward saving and feel more capable of managing their financial resources, thereby increasing their likelihood of saving and participating in entrepreneurial activities (Lusardi & Mitchell, 2014; Ajzen, 1991).

This combined framework provides comprehensive understanding of household financial behaviour by addressing both cognitive factors such as knowledge and attitudes and behavioural intentions. It aligns with empirical evidence indicating that financial literacy and perceptions of control jointly influence financial decisions and entrepreneurial outcomes (Lusardi & Mitchell, 2014; Kautish *et al.,* 2020). Consequently, this integrated approach offers valuable insights into the determinants of savings and entrepreneurship growth, particularly in rural Nigeria, where varying levels of financial literacy significantly impact economic activities and development paths.

Literature Review

The reviewed literature critically examines household saving behaviours and financial literacy as key predictors of entrepreneurship development. By integrating theoretical perspectives and empirical evidence, it identifies research gaps and guides the development of a comprehensive conceptual framework for this study. Recent research, such as Adeyemi & Olaleye (2021) examined the influence of household savings on entrepreneurship development in Nigeria through a cross-sectional study of 300 households using correlation and regression analyses. Their findings revealed that savings positively affect entrepreneurship, with financial literacy acting as a mediating factor. However, the study mainly focused on urban households, overlooking rural populations where savings and financial literacy may differ significantly. This represents a notable gap in understanding the role of household savings in rural entrepreneurship contexts within Nigeria.

Eze & Obioha (2020) adopted a mixed-methods approach, combining surveys and focus group discussions with 150 Nigerian youth to investigate savings behaviours and their influence on entrepreneurship activities. Their results revealed positive relationship between savings and entrepreneurship engagement, which was significantly enhanced when participants also possessed financial literacy. However, the concentration of the study on urban youth limits its general acceptability to household-level dynamics in rural areas, where socio-economic factors, savings patterns and entrepreneurship opportunities often differ obviously. Consequently, the findings may not fully capture the complexities of rural savings behaviours and their impact on entrepreneurship in Nigeria.

Furthermore, Agyapong *et al*. (2020), highlights the significant role of financial literacy in promoting entrepreneurship success, demonstrated through a survey of 250 Ghanaian entrepreneurs where financial literacy improved business management and resilience. However, their focus on urban entrepreneurs' limits applicability to rural contexts and overlooks how savings behaviours interact with financial literacy to influence entrepreneurship, crucial gap for understanding rural economic dynamics.

In another study, Chinomona & Dhurup (2019) investigated how financial literacy impacts the sustainability of small businesses in South Africa, employing a survey of 200 small business owners analysed via structural equation modelling. Results confirmed that financial literacy directly enhances business sustainability. Even though the study emphasizes the importance of financial literacy, it primarily concentrates on business survival rather than broader entrepreneurship development or household savings behaviours, thereby limiting its applicability to rural household dynamics and the wider entrepreneurship environment.

Similarly, Gana and Ngoua (2019) examined the role of financial literacy in improving microenterprise performance in Cameroon through cross-sectional survey of 180 microentrepreneurs. Their regression analysis confirmed that financial literacy has a significant positive effect on business performance. Nonetheless, the study's narrow focus on microenterprises restricts broader insights into how household savings contribute to overall entrepreneurship development, particularly in rural regions where microenterprises tend to be more prevalent. This limits the applicability of their findings to understanding the wider socio-economic factors influencing rural household savings and enterprise growth.

On the same vein, Tchouassi & Njoya (2020) examined how financial literacy affects savings and investment behaviours among entrepreneurs in Cameroon through a survey of 200 respondents

analysed via regression models. They found that financial literacy improves savings and investment behaviours, leading to business expansion. Nonetheless, their focus on individual investment behaviours neglects the role of household savings and its interaction with financial literacy in broader entrepreneurship development.

In addition, Sarpong & Osei-Tutu (2021) analysed the impact of financial literacy on rural household income and entrepreneurship in Ghana, utilizing structural equation modelling on data from 300 households. Their findings indicated that financial literacy influences income through entrepreneurship activities, promoting rural development. However, the study does not explore into household savings as specific resource supporting entrepreneurship, which is a notable omission given the importance of savings in rural economic resilience.

Most existing studies highlighted the importance of savings and financial literacy for entrepreneurship success but predominantly focus on microenterprises, youth, women or urban populations, with limited attention to rural household contexts. There were little studies if any, efforts examined how household savings interact with financial literacy to influence entrepreneurship in rural areas. These studies often treat financial literacy and savings as separate factors rather than exploring their potential mediating or moderating roles within households. The literature generally emphasizes individual or microenterprise outcomes without considering broader socio-economic dynamics specific to rural settings like Kebbi State, Nigeria. This gap emphasises the need for comprehensive investigation on how household savings and financial literacy jointly affect entrepreneurship development in rural Nigeria, which can inform targeted policies for rural economic empowerment.

Materials and Methods

This study employed a mixed-method approach, combining qualitative and quantitative techniques within a positivist framework to systematically investigate rural household savings and entrepreneurship development, with financial literacy as a moderating factor. Data were gathered via a closed-ended, self-administered questionnaire from a sample of 300 rural households owning micro and small businesses in the four emirate councils of Kebbi State, Nigeria (Argungu, Birnin Kebbi, Zuru, and Yauri). Both licensed and unlicensed enterprises were included. Purposive sampling was used, and while Yamane (1967) recommends a minimum of 400 participants, this study included 300. The survey instrument consisted of two sections: demographics and a series of five-point Likert scale items measuring savings (Agarwalla et al., 2013) and financial literacy (Azhar, 2017).

To mitigate common method bias (CMB) and response bias, the questionnaire was designed with diverse response formats in line with recommendations from Jordan and Troth (2020) and Chin et al. (2012). A Single-factor Harman test in SPSS found that a single factor explained only 40.05% of variance, below the 60% threshold, suggesting CMB was unlikely to bias results. Data analysis included both descriptive and inferential statistics, with Partial Least Squares Structural Equation Modelling (PLS-SEM) chosen for its suitability with smaller sample sizes and non-normal data (Hair et al., 2017). Relationships between latent constructs and indicators were modelled reflectively, and the two-step approach by Leguina (2015) was employed to assess measurement reliability, validity, and the structural model.

Model Specification:

This study adopts moderated regression model to examine how rural household savings influence entrepreneurship development and how financial literacy may alter this relationship. The model is

built on the premise that rural household savings can influence entrepreneurship development, with financial literacy moderating this pathway, implying that the strength of the influence varies at different levels of financial literacy.
The statistical model can be expressed as:

$$ED = \beta_0 + \beta_1 RHHS + \beta_2 FL + (\beta_3 RHHS \times FL) + \varepsilon \quad \ldots\ldots (1)$$

Where:

$\beta 0$ is the intercept,
β_1 = captures the direct effect of rural household savings,
β_2 = captures the effect of financial literacy,
β_3 = captures the moderating effect (interaction term),
ε =is the error term.

This model aligns with established frameworks in financial behaviour research (Kim & Chatterjee, 2013; Lusardi & Mitchell, 2014).

Measurement of Variables

Rural Household Saving

In this study, Rural Household Saving is considered the independent variable and is assessed based on the amount of savings accumulated, the frequency of savings activities and the specific purposes for which savings are set aside (e.g., agriculture, emergency needs, education or entrepreneurial ventures). The measurement approach is adapted and modified from previous studies (Dangol & Maharjan, 2018; Ariffin *et al.*, 2017). A 5-point Likert scale was employed to rate respondents' statements that best describe their savings practices within the rural context. Score 5, strongly agree, reflecting a high level of consistent and purposeful rural household savings, while score of 1 indicates strongly disagree, signifying poor or inconsistent savings habit among rural households. This measurement captures the degrees of savings in rural settings, including informal savings methods and the social or cultural motivations behind saving activities.

Entrepreneurship Development

Entrepreneurship Development refers to the process of enhancing the skills, knowledge and attitudes of entrepreneurs to improve their ability to start and grow businesses successfully. It encompasses activities and initiatives aimed at fostering entrepreneurship mind set, innovation and business management capabilities, thereby contributing to economic growth and employment creation (Nwankwo & Nwankwo, 2017). To suit the current study, entrepreneurship development was measured by adopting and modifying measurement items from established scholars (Onyeiwu, 2014; Nwankwo & Nwankwo, 2017). These items assessed various aspects of entrepreneurship skills, business management practices, access to resources and innovation. The measurement instrument employed Likert scale, allowing respondents to indicate their level of agreement or frequency regarding statements that describe their entrepreneurship development, thus capturing the extent to which they have developed their entrepreneurship capacities. To ascertain this, the study made use of the 5-likert scale ranging from 5- strongly agree representing a high impact of entrepreneurship development on the respondent to 1- strongly disagree indicating entrepreneurship development low impact on the respondent. The measurement of social influence was based on 10 measurement items.

Financial Literacy

The mediator variable is defined as the variable that influences the relationship between the dependent and independent variables. In this study, the intervening variable is financial literacy. According to Arnone (2004), financial literacy is described as the skills acquired through education that shape individuals to behave appropriately for improved financial well-being. It involves understanding and applying financial information to effectively manage daily finances. Financial literacy was measured by adopting and modifying measurement items of (Atkinson & Messy, 2012; Sulong *et al*., 2017). Eleven (11) items were adapted to assess financial literacy, utilizing 5-Likert scale ranging from 5, strongly agree, indicating high level of financial literacy, to 1, strongly disagree, indicating low level of financial literacy.

Results and Discussion

Descriptive Statistics

Table 1 presents the demographic characteristics of the respondents. The demographic data of the respondents reveals several key insights. Most participants are male, making up 71% of the sample, while females account for only 29%. This indicates predominantly male respondent group. In terms of age, respondents are evenly distributed across different age brackets, with the largest group falling within the 36–45 years range (about 24%), followed closely by those aged 26–35 and 46–55, each representing roughly 22–23%. The youngest respondents, aged 15–25, constitute 18%, and those aged 56 and above make up 13%, suggesting mature sample with slight emphasis on middle-aged individuals.

Table 1: Demographic Characteristics of Respondents

Variable	Categories	Frequencies	Percentage
Gender	Male	213	71%
	Female	87	29%
Age	15 – 25	54	18%
	26 – 35	67	22.33%
	36 – 45	71	23.67%
	46 – 55	69	23%
	56 and above	39	13%
Maria Status	Single	47	15.67%
	Married	157	52.33%
	Divorce	53	17.67%
	Window	43	14.33%
Education	Informal	27	9%
	Primary	32	10.67%
	Secondary	39	13%
	Bachelor	141	47%
	Master	43	14.33%
	PhD	18	6%
Bank Account	Yes	267	89%
	No	33	11%

Source*:* Author's computation, 2026

Regarding marital status, most respondents are married, comprising about 52%, while single respondents represent approximately 16%. Divorced and widowed individuals make up roughly 17.67% and 14%, respectively, indicating that most respondents are in stable marital relationships. In terms of education, the respondents are relatively well-educated, with nearly half (47%) holding bachelor's degree. Secondary education and primary education account for 13% and 10.67%, respectively. while smaller proportion has attained postgraduate qualifications, including master's degrees (about 14%) and PhDs (6%). This indicates sample with a significant level of higher education.

Finally, most respondents (about 89%) own bank account, reflecting high levels of financial inclusion, while only 11% do not have bank accounts. This widespread banking participation suggests that the respondents are generally engaged with formal financial services, which is relevant when considering their financial literacy and saving behaviours. The study can infer that, the demographic profile depicts predominantly male, middle-aged, married, and relatively educated group with high levels of bank account ownership, providing solid foundation for analysing their financial practices and attitudes toward savings and entrepreneurship.

Data Reliability and Validity

Test for Reliability

To ensure that the survey instruments were reliable and accurate, we first looked at four key aspects of the outer measurement model. We calculated the composite reliability (CR) and internal consistency reliability (Cronbach's alpha) to see how well the individual items within each scale worked together to measure the underlying concepts of savings, entrepreneurship development and financial literacy. We also examined the convergent validity to make sure that the survey items were indeed measuring the right things. Finally, we tested the discriminant validity to confirm that these constructs were distinct from one another and not just different names for the same thing.

Table 2: Reliability Test

Constructs/Items	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
ED	0.842	0.843	0.838	0.511
FL	0.868	0.871	0.854	0.598
RHHS	0.903	0.911	0.902	0.643

Source: Author’s computation using SMARTPLS 4, 2026

Table 2 demonstrates that the internal reliability of the scale was satisfactory. The reliability indices, including Cronbach’s alpha, composite reliability (rho_a and rho_c), all yielded high values, ranging from 0.842 to 0.903 for Cronbach’s alpha and from 0.843 to 0.911 for composite reliability, exceeding the commonly accepted threshold of 0.7. These results indicated good to excellent internal consistency across all constructs. In addition, the Average Variance Extracted (AVE) values ranged from 0.511 to 0.643, all surpassing the minimum threshold of 0.50. This suggests that the constructs possess strong convergent validity, meaning the items effectively capture the intended underlying constructs as suggested by (Hair *et al*., 2017).

Cross loading Test

To evaluate the discriminant validity of the constructs, the study employed the cross-loading method, the Fornell-Larcker criterion, and the Heterotraitmonotrait ratio (HTMT). The cross-loading test verifies that survey items for savings, entrepreneurship development and financial literacy accurately measure their respective constructs without overlapping. This validation ensures the reliability of the results, confirming that the relationships identified (such as how savings impact entrepreneurship and the moderating role of financial literacy) are based on clear, distinct measurements.

Table 3: Result of Cross Loading Test

	ED	FL	RHHS
ED1	0.834	0.575	0.452
ED2	0.616	0.466	0.427
ED3	0.624	0.370	0.446
FL1	0.484	0.695	0.348
FL2	0.543	0.780	0.391
FL3	0.559	0.803	0.378
RHHS1	0.391	0.317	0.639
RHHS2	0.467	0.366	0.764
RHHS3	0.445	0.340	0.727

Source: Author's computation using Smart PLS 4.0, 2026

Table 3 displays the results of the cross-loading analysis used to assess the discriminant validity constructs of the study: Entrepreneurship Development (ED), Financial Literacy (FL), and Rural Household Savings Behaviour (RHHS). Cross-loading examines how strongly each indicator loads onto its own construct compared to other constructs. Ideally, each indicator should have higher loadings on its intended construct than on others.

For example, the indicator ED1 has a loading of 0.834 on the entrepreneurship development construct, which is higher than its loadings on financial literacy (0.575) and rural household savings (0.452). Similarly, FL2 shows high loading of 0.780 on financial literacy, compared to lower loadings on other constructs. RHHS3 has a loading of 0.727 on rural household savings, which is greater than its loadings on the other constructs. These results suggest that each indicator loads most strongly on its respective construct, supporting the discriminant validity of the measurement model. This indicates that the constructs are distinct and measure different concepts, which is essential for the validity of the study's findings.

Test for Validity

Table 4 presents the results of the Fornell-Larcker criterion and the HTMT (Heterotraitmonotrait) ratio analysis used to assess discriminant among the constructs (ED, FL and RHHS).

Table 4: Result of Fornell-Larcker Test Measures and HTMT Ratio Tests

Fornell-Larcker Test Measures				HTMT Ratio			
	ED	FL	RHHS		ED	FL	RHHS
ED	0.717			ED			
FL	0.696	0.760		FL	0.689		

RHHS	0.714	0.617	0.798	RHHS	0.688	0.609

Source: Author's computation using Smart PLS 4.0, 2026

The Fornell-Larcker test shows that each construct's square root of the Average Variance Extracted (AVE), represented by the diagonal elements, exceeds its correlation with other constructs. Specifically, ED has a value of 0.717, FL has 0.760, and RHHS has 0.798. These values are higher than their respective correlations with other constructs, supporting discriminant validity. The HTMT ratio values are all below the conservative threshold of 0.85, indicating adequate discriminant validity. The HTMT ratios are 0.689 (ED and FL), 0.688 (ED and RHHS), and 0.609 (FL and RHHS). Since these are well below 0.85, the constructs are considered distinct from each other. This result suggests that both the Fornell-Larcker criterion and HTMT ratio analysis confirm that the constructs of entrepreneurship development, financial literacy and rural household saving are empirically distinct, demonstrating good discriminant validity in the measurement model.

Testing for Moderation

The results from the moderation analysis presented in Table 5, indicated that financial literacy significantly influences the relationship between rural household savings and entrepreneurship development. The model produced R^2 of .381 indicating that it explains about 38.1% of the variation in entrepreneurship development, which is considered a good fit. The findings further indicated that financial literacy influence is significant predictors of household savings. Household savings with coef. = 1.512, CI =.865, 2.229 and financial literacy with coef. = 1.698, CI = 1.068, 2.355 thereby supporting both hypothesis one and hypothesis two. The result shows that both financial literacy and household savings individually have positive and significant effects on entrepreneurship development. Specifically, higher financial literacy increases the likelihood of successful entrepreneurial activities and greater household savings also contribute positively.

Table 5: Test for Moderation Effect

R	R^2	MSE	F	df1	df2	P
0.262	0.381	0.211	84.043	3000	391.000	0.000
	coeff	se	t	p	LLCI	ULCI
Constant	-6.139	1.948	-3.235	.002	-9.989	-2.390
Financial literacy	1.698	.322	5.311	.000	1.068	2.355
Household savings	1.512	.334	4.349	.000	0.865	2.229
Interaction term	-.219	.056	-3.713	.000	-.322	-.097

Source: Author's computation 2026

Table 6: Test of Highest Order Unconditional Interaction

	R-SQ	F	df1	df2
Interaction term	.022	13.787	1.000	381.000

Source: Author's computation 2026

Results further indicated a negative coefficient (-.219), p=.0000<0.05, CI = (-.322, -.097) when it comes to the interaction. This implies that the interaction term between financial literacy and rural

household savings is negative and statistically significant. This suggests that as financial literacy increases, the strength of the relationship between savings and entrepreneurship decreases. In other words, rural households with higher financial literacy may rely less on savings to fund their entrepreneurial ventures because they might have better access to other financial resources or manage their finances more effectively. Furthermore, the test of the highest order unconditional interaction presented in Table 6, confirms that this moderating effect is statistically significant, explaining an additional 2.2% of the variance in entrepreneurship development. These findings imply that improving financial literacy can alter how rural household savings influence entrepreneurship. While both rural household savings and financial literacy are beneficial, enhancing financial literacy may reduce dependence on rural household savings alone for entrepreneurial activities, emphasizing the importance of comprehensive financial education in rural development strategies.

Test of Hypotheses

The study evaluated the direct and moderating relationships among the variables. Two direct hypotheses and one moderating hypothesis were suggested and tested. The details of structural and measurement model and path coefficient have been presented in Table 6

Table 7: Results of Path coefficient and Hypothesis Testing

Hypothesis	Code	Coef (β)	-Start	P-value	Remarks
Rural household saving has no positive impacts on entrepreneurship development.	RHHS→ED	0.276	10.291	0.000	Rejected
Financial literacy doesn't have positive impact on entrepreneurship development.	FL→ED	0.236	14.561	0.000	Rejected
There is no significant moderating effect of financial literacy on the relationship between rural household saving and entrepreneurship development.	FL x RHHS →ED	0.089	3.184	0.000	Rejected

Source: Author's computation using Smart PLS 4.0, 2026

Table 7 presents the results of the path coefficient analysis and hypothesis testing for the relationships among rural household savings, financial literacy and entrepreneurship development. The first hypothesis, proposing that rural household savings has no impact on entrepreneurship development, is rejected. The path coefficient (β = 0.276) has a t-value of 10.291 with a p-value of 0.000, confirming that increased household savings significantly contribute to entrepreneurship development, this hypothesis is rejected. The second hypothesis, that financial literacy does not have positively impacts on entrepreneurship development, is also rejected as supported by significant positive path coefficient (β = 0.236) with a t-value of 14.561 and p-value of 0.000. This indicates that higher levels of financial literacy are associated with greater entrepreneurship development.

The third hypothesis examines the moderating role of financial literacy on the relationship between rural household savings and entrepreneurship development. The interaction term (FL x RHHS → ED) has a path coefficient of 0.089, t-value of 3.184 and a p-value of 0.000. These results indicated that financial literacy significantly strengthen the positive impact of rural household savings on

entrepreneurship development and the hypothesis on moderation effect of financial literacy is also rejected. Notably, all the three hypotheses are supported, demonstrating that both rural household savings and rural financial literacy directly influence entrepreneurship development and financial literacy also play a significant moderating role in enhancing the effect of rural household savings on entrepreneurship development.

Discussion of Findings

The study examines the moderating effect of financial literacy on the relationship between household savings and entrepreneurship development in Kebbi state, Nigeria The findings of this study indicated negative moderation effect (where increased financial literacy diminishes the strength of the savings-entrepreneurship relationship) provides an insight. It suggests that as financial literacy improves, rural households may diversify their resources or adopt more effective financial management strategies, thereby reducing reliance solely on savings. This finding complements the literature by indicating that financial literacy not only directly promotes entrepreneurship but also influences how savings are leveraged, a dynamic less explored in prior studies. The literature reviewed identified significant gap concerning the interaction between rural household savings and financial literacy in rural settings, most prior studies focused on microenterprises, urban populations or individual entrepreneurs. The results fill this gap by demonstrating that these factors jointly influence rural entrepreneurship, emphasizing the need for integrated financial education and savings promotion policies tailored to rural households.

Furthermore, findings of this study align with and extend the existing literature on rural household savings, financial literacy and entrepreneurship development, particularly within rural contexts such as Kebbi State, Nigeria. The study confirms that rural household savings positively influence entrepreneurship development. Which is, consistent with findings of Adeyemi & Olaleye (2021), While prior studies predominantly focused on urban populations (Eze & Obioha, 2020), this results underscore to that rural household savings are equally vital, emphasizing the need to consider rural-specific dynamics. Similarly, Eze & Obioha (2020) highlighted the positive relationship between savings and entrepreneurial engagement, which our findings supported, further demonstrating that savings contribute significantly to entrepreneurial activities amongst rural households.

The positive impact of financial literacy on entrepreneurship development observed here echoes the findings of Agyapong *et al.* (2020; Chinomona & Dhurup, 2019), who emphasized that financial literacy enhances business management skills and sustainability. The results also reinforce the importance of financial literacy as a critical predictor of entrepreneurial success, extending its relevance to rural household contexts, which have historically been underrepresented in the literature. Most notably, the key contribution of the study lies in identifying the moderating role of financial literacy. The significant interaction effect indicates that higher financial literacy amplifies the positive impact of rural household savings on entrepreneurship development. This aligns with the theoretical framework suggesting that financial literacy enhances households' ability to effectively utilize savings for entrepreneurial ventures, which previous studies (Tchouassi & Njoya 2020; Gana & Ngoua, 2019) have hinted at but not explicitly tested in rural household settings.

It is clearly shown that the results of the study support and extend the existing literature by empirically establishing that both household savings and financial literacy are crucial for rural entrepreneurship development and that financial literacy enhances the effectiveness of savings in

this context. The findings advocate for targeted interventions to improve financial literacy to maximize the benefits of rural household savings and foster sustainable rural entrepreneurship, aligning with the broader calls for rural financial empowerment highlighted in prior studies.

Conclusion

The study concluded that both rural household savings and financial literacy have positive impact in fostering entrepreneurship development in Kebbi state. The findings revealed that financial literacy significantly play a mediating role in influencing the impact rural households' ability to save and utilize financial resources effectively, thereby promoting entrepreneurial activities and economic growth in rural communities. The findings further revealed that, financial literacy has a negative moderation effect thereby reduces the strength of the savings-entrepreneurship relationship. This implies that, as financial literacy improves, rural households may diversify their resources or adopt more effective financial management strategies, thereby reducing reliance solely on savings. This finding complements the literature by indicating that financial literacy not only directly promotes entrepreneurship but also influences how savings are leveraged.

Recommendations

From the findings, the study makes the following recommendations:

1. The government and relevant agencies should implement targeted financial literacy programs in Kebbi State to improve household understanding of savings and financial management, thereby fostering an environment conducive to entrepreneurship development. To support this, the government should prioritize the integration of comprehensive financial literacy programs into national development strategies to enhance rural household savings behaviours and entrepreneurship capacity, especially in underserved regions like Kebbi State. More precisely, implement Nationwide Financial Literacy Initiatives (NFLI).
2. Families and community leaders should actively engage in financial socialization practices, such as discussions on savings and investment, to strengthen household savings behaviour and support entrepreneurship initiatives within the community. Policymakers should develop incentives such as tax breaks, subsidies or grants for rural households that demonstrate positive savings habits and engage in entrepreneurship activities, encouraging a savings culture that supports sustainable entrepreneurship.
3. Financial institutions in Kebbi State should design accessible financial products and services that align with households' savings behaviours and financial literacy levels, providing the necessary support for aspiring entrepreneurs to start and sustain their businesses. Authorities should facilitate the expansion of accessible, affordable microfinance and financial services tailored to rural households with varying levels of financial literacy, thereby fostering entrepreneurship growth and economic resilience at the grassroots level.

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